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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 09/775,106  
Filing Date: February 1, 2001  
Applicant: Mourou  
Group Art Unit: 1725  
Examiner: G. Evans  
Title: METHOD FOR CONTROLLING CONFIGURATION OF  
LASER INDUCED BREAKDOWN AND ABLATION  
Attorney Docket: 2115D-000939/DVC

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Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**DECLARATION UNDER 37 CFR 1.131**

The undersigned hereby declare that:

1. We are the inventors of the subject matter described and claimed in the above identified patent application, serial no. 09/775,106 which is a divisional of reissue application serial no. 366,685, which is a reissue application of patent no 5,656,186 filed April 8, 1994, as Serial No. 08/224,961.

2. Prior to March 31, 1994, invention disclosure materials concerning the subject matter of the above identified patent application were submitted to the

**Pronko**

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Technology Management Office of the University of Michigan and to its outside counsel, Linda Deschere. Such invention disclosure materials included, but were not limited to, the documents contained in Exhibit 1 attached hereto. Such documents are entitled a) Sub-Wavelength Micro-Machining by Ultrafast Laser Ablation; b) Laser-Induced Breakdown by Impact Ionization in SiO<sub>2</sub> with Pulse-widths from 7 ns to 150 fs; and c) Damage Threshold as a Function of Pulse Duration in Biological Tissue. The materials of Exhibit 1 were not published prior to filing of the Application Serial No. 08/224,961.

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<u>Detao Du</u>	<u>Date</u>	<u>Xinbing Liu</u>	<u>Date</u>
<u>Subrata Dutta</u>	<u>Date</u>	 <u>Peter Pronko</u>	<u>10/17/02</u> <u>Date</u>
<u>Victor Elner</u>	<u>Date</u>	<u>Jeffrey Squier</u>	<u>Date</u>
<u>Ron Kurtz</u>	<u>Date</u>		

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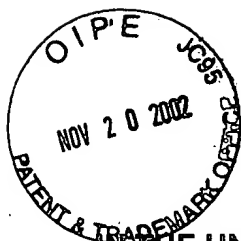
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3. It is our understanding that prior to March 31, 1994, the Technology Management Office of the University of Michigan requested that attorney Linda Deschere prepare a patent application based on the invention disclosure.

4. It is our understanding that attorney, Linda Deschere prepared a draft of the above identified patent application at least as early as March 31, 1994. On Thursday, March 31, 1994, Linda Deschere sent such draft patent application via facsimile to Mitchell A. Goodkin which was forwarded to us for review. A copy of the letter dated March 31, 1994 transmitting the draft patent application is attached as Exhibit 2.

5. At least as early as March 31, 1994, at least a set of claims for the draft of the above identified patent application was sent to inventor, Peter Pronko. On Thursday, March 31, 1994, Peter Pronko sent his comments regarding the claims for

the patent application to Linda Deschere. A copy of the facsimile cover transmitting Mr. Pronko's comments is attached as Exhibit 3.

6. On Tuesday, April 5, 1994, inventors, Jeff Squier and Gerard Mourou, sent their comments regarding the draft patent application of March 31, 1994 to Linda Deschere. A copy of the facsimile cover transmitting comments of Jeff Squier and Gerard Mourou is attached as Exhibit 4.

7. It is our understanding that Linda Deschere prepared a subsequent draft patent application based on our comments regarding the earlier draft patent application. On Wednesday, April 6, 1994, Linda Deschere sent the subsequent draft patent application via facsimile for our review. A copy of the letter transmitting the subsequent draft patent application is attached as Exhibit 5.

8. On Thursday, April 7, Gerard Mourou sent a facsimile transmission to Linda Deschere containing corrections to the draft of Exhibit 5. A copy of the facsimile cover transmitting such corrections is attached as Exhibit 6.

9. The above identified patent application was filed with the United States Patent and Trademark Office on Friday, April 8, 1994.

10. The letters and faxes including the attachments referenced therein have been maintained in confidence. As such, we, the inventors, hereby expressly reserve and do not waive, directly or indirectly, our rights and protection under the attorney-client privilege and work product doctrine in all communications with our attorneys which communications accompanied the letters and fax cover sheets referred to and attached to this declaration, whereby the submission of the transmittals herewith does not constitute a waiver of such rights and protection.

11. The undersigned acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 USC 1001) and may jeopardize the validity of the application or any patent issuing thereon. The undersigned declares that all statements made of the declarant's own knowledge are true and that all statements made on information and belief are believed to be true.

Gerard Mourou	Date	Paul Lichter	Date
Detao Du	Date	Xinbing Liu	Date
<i>Subrata Dutta</i>	<i>10/14/02</i>		
Subrata Dutta	Date	Peter Pronko	Date
Victor Elner	Date	Jeffrey Squier	Date
Ron Kurtz	Date		



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/775,106

Filing Date: February 1, 2001

Applicant: Mourou

Group Art Unit: 1725

Examiner: G. Evans

Title: METHOD FOR CONTROLLING CONFIGURATION OF  
LASER INDUCED BREAKDOWN AND ABLATION

Attorney Docket: 2115D-000939/DVC

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

RECEIVED  
NOV 22 2002  
TC 1700

DECLARATION UNDER 37 CFR 1.131

The undersigned hereby declare that:

1. We are the inventors of the subject matter described and claimed in the above identified patent application, serial no. 09/775,106 which is a divisional of reissue application serial no. 366,685, which is a reissue application of patent no 5,656,186 filed April 8, 1994, as Serial No. 08/224,961.

2. Prior to March 31, 1994, invention disclosure materials concerning the subject matter of the above identified patent application were submitted to the

Mourou

Technology Management Office of the University of Michigan and to its outside counsel, Linda Deschere. Such invention disclosure materials included, but were not limited to, the documents contained in Exhibit 1 attached h reto. Such documents are entitled a) Sub-Wavelength Micro-Machining by Ultrafast Laser Ablation; b) Laser-Induced Breakdown by Impact Ionization in SiO<sub>2</sub> with Pulse-widths from 7 ns to 150 fs; and c) Damage Threshold as a Function of Pulse Duration in Biological Tissue. The materials of Exhibit 1 were not published prior to filing of the Application Serial No. 08/224,961.

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\_\_\_\_\_  
Gerard Mourou

11/12/02  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Paul Lichter

\_\_\_\_\_  
Date

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Detao Du

\_\_\_\_\_  
Date

\_\_\_\_\_  
Xinbing Liu

\_\_\_\_\_  
Date

\_\_\_\_\_  
Subrata Dutta

\_\_\_\_\_  
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Victor Elner

\_\_\_\_\_  
Date

\_\_\_\_\_  
Jeffrey Squier

\_\_\_\_\_  
Date

\_\_\_\_\_  
Ron Kurtz

\_\_\_\_\_  
Date

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HDP/SB/21 based on PTO/SB/21 (08-00)

6P/1725  
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	<b>TRANSMITTAL FORM</b>	
	Applicati n Number	09/775,106
	Filing Date	February 1, 2001
	First Nam d Inv nt r	G. Mourou
	Group Art Unit	1725
Examiner Name		G. Evans
Total Number of Pages in This Submission	Attorney Docket Number 2115D-000939/DVC	

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input checked="" type="checkbox"/> Affidavits/declaration(s) (9) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>PTO Form-1449 (including 3 cited references) &amp; Certificate of Mailing.</b>
Remarks		The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Linda M. Deschere
Reg. No.	34,811		
Signature			
Date	November 15 2002		

CERTIFICATE OF MAILING/TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below.			
Typed or printed name	Linda M. Deschere		
Signature		Date	November 15 2002

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TC 1700

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>FEE TRANSMITTAL</b> <b>for FY 2003</b> <small>Patent fees are subject to annual revision.</small>		<b>Complete if Known</b>													
<div style="border: 1px solid black; padding: 5px; display: inline-block; transform: rotate(-45deg); transform-origin: left top;">             RECEIVED              NOV 20 2002              TRADEMARK           </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>09/775,106</td> </tr> <tr> <td>Filing Date</td> <td>February 1, 2001</td> </tr> <tr> <td>First Named Inventor</td> <td>G. Mourou</td> </tr> <tr> <td>Examiner Name</td> <td>G. Evans</td> </tr> <tr> <td>Group / Art Unit</td> <td>1725</td> </tr> <tr> <td>Attorney Docket No.</td> <td>2115D-000939/DVC</td> </tr> </table>		Application Number	09/775,106	Filing Date	February 1, 2001	First Named Inventor	G. Mourou	Examiner Name	G. Evans	Group / Art Unit	1725	Attorney Docket No.	2115D-000939/DVC
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<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TOTAL AMOUNT OF PAYMENT</td> <td>(\$ ) 235</td> </tr> </table>		TOTAL AMOUNT OF PAYMENT	(\$ ) 235										
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<b>METHOD OF PAYMENT (check all that apply)</b> <input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/> Deposit Account: Deposit Account Number: <span style="border: 1px solid black; padding: 2px;">08-0750</span> Deposit Account Name: <span style="border: 1px solid black; padding: 2px;">Harness, Dickey &amp; Pierce P.L.L.C.</span> The Commissioner is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.					<b>FEE CALCULATION (continued)</b>																																																																																																																																																																																																																																																
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1453	1,280	2453	640	Petition to revive - unintentional																																																																																																																																																																																																																																																	
1501	1,280	2501	640	Utility issue fee (or reissue)																																																																																																																																																																																																																																																	
1502	460	2502	230	Design issue fee																																																																																																																																																																																																																																																	
1503	620	2503	310	Plant issue fee																																																																																																																																																																																																																																																	
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																																																																																																	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)																																																																																																																																																																																																																																																	
1806	180	1806	180	Submission of Information Disclosure Stmt	180																																																																																																																																																																																																																																																
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																																																																																																	
1809	740	2809	370	Filing a submission after final rejection (37 CFR § 1.129(a))																																																																																																																																																																																																																																																	
1810	740	2810	370	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																																																																																																																																																	
1801	740	2801	370	Request for Continued Examination (RCE)																																																																																																																																																																																																																																																	
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																																																																																																	
Other fee (specify) _____																																																																																																																																																																																																																																																					
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<b>2. EXTRA CLAIM FEES</b> <table style="width: 100%;"> <tr> <td>Total Claims</td> <td><span style="border: 1px solid black; padding: 2px;">-20 **</span></td> <td>=</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> <td>X</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> <td>=</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> </tr> <tr> <td>Independent Claims</td> <td><span style="border: 1px solid black; padding: 2px;">-3 **</span></td> <td>=</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> <td>X</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> <td>=</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td>X</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> <td>=</td> <td><span style="border: 1px solid black; padding: 2px;">0</span></td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr> <td>1202</td> <td>18</td> <td>2202</td> <td>9</td> <td>Claims in excess of 20</td> <td></td> </tr> <tr> <td>1201</td> <td>84</td> <td>2201</td> <td>42</td> <td>Independent claims in excess of 3</td> <td></td> </tr> <tr> <td>1203</td> <td>280</td> <td>2203</td> <td>140</td> <td>Multiple dependent claim, if not paid</td> <td></td> </tr> <tr> <td>1204</td> <td>84</td> <td>2204</td> <td>42</td> <td>** Reissue independent claims over original patent</td> <td></td> </tr> <tr> <td>1205</td> <td>18</td> <td>2205</td> <td>9</td> <td>** Reissue claims in excess of 20 and over original patent</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;"><b>SUBTOTAL (2)</b></td> <td style="border: 1px solid black; text-align: center;">(\$ ) 0</td> </tr> </tbody> </table>					Total Claims	<span style="border: 1px solid black; padding: 2px;">-20 **</span>	=	<span style="border: 1px solid black; padding: 2px;">0</span>	X	<span style="border: 1px solid black; padding: 2px;">0</span>	=	<span style="border: 1px solid black; padding: 2px;">0</span>	Independent Claims	<span style="border: 1px solid black; padding: 2px;">-3 **</span>	=	<span style="border: 1px solid black; padding: 2px;">0</span>	X	<span style="border: 1px solid black; padding: 2px;">0</span>	=	<span style="border: 1px solid black; padding: 2px;">0</span>	Multiple Dependent				X	<span style="border: 1px solid black; padding: 2px;">0</span>	=	<span style="border: 1px solid black; padding: 2px;">0</span>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1202	18	2202	9	Claims in excess of 20		1201	84	2201	42	Independent claims in excess of 3		1203	280	2203	140	Multiple dependent claim, if not paid		1204	84	2204	42	** Reissue independent claims over original patent		1205	18	2205	9	** Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (2)</b>					(\$ ) 0																																																																																																																																																																											
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\*\*or number previously paid, if greater; For Reissues, see above

<b>SUBMITTED BY</b>				<b>Complete (if applicable)</b>	
Name (Print/Type)	Linda M. Deschere	Registration No. Attorney/Agent	34,811	Telephone	248-641-1600
Signature				Date	November 15 2002

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